What is claimed is:

- 1. A high-speed supercavitating underwater vehicle comprising:
  - an elongated hull of circular cross section, the hull having a cavitator at a forward end thereof, and means for ventilating gas positioned in said hull to form a cavity around said elongated hull in underwater travel; and
  - an expandable annular skirt fixed on said hull and having an outer surface generally continuous with an outer surface of said hull, said skirt being expandable to increase a diameter of said skirt from proximate a diameter of said hull to proximate a diameter of the cavity, whereby to substantially reduce the flow of gas past said skirt.
- 2. The underwater vehicle in accordance with claim 1 wherein said skirt is pleated.
- 3. The underwater vehicle in accordance with claim 1 wherein said skirt comprises a plurality of discrete cells.

- 4. The underwater vehicle in accordance with claim 2 wherein said skirt comprises a plurality of discrete radially extending cells.
- 5. The underwater vehicle in accordance with claim 1 wherein said skirt comprises a radially extendible annular bag.
- 6. The underwater vehicle in accordance with claim 1 wherein said skirt comprises a plurality of radially extendible annular bags.
- 7. The underwater vehicle in accordance with claim 6 wherein said bags are inflatable.
- 8. The underwater vehicle in accordance with claim 7 wherein each of said bags overlays at least one neighboring bag when said bags are in a deflated condition.
- 9. The underwater vehicle in accordance with claim 1 and further comprising stabilizing fins fixed to said hull and extending beyond the boundary of the cavity.